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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,229	11/02/2001	Norio Sakai	36856.561	8116

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EXAMINER

LEVI, DAMEON E

ART UNIT PAPER NUMBER

2841

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,229

Examiner

Dameon E Levi

Applicant(s)

SAKAI, NORIO

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al US Patent 6278178 in view of Hata et al US Patent 6383835.

Regarding claim 1, Kwon et al discloses an electronic component comprising:

a member having first and second main surfaces disposed opposite to each other, and four side surfaces connecting the first and second main surfaces, at least one of the side surfaces being provided with a recess portion extending from the first main surface to the second main surface; and a plurality of external terminal electrodes provided in the recess portion; wherein a plurality of concavities are provided in the recess portion (for example, see element 21,23a Fig 16C).

Kwon et al does not disclose the external terminal electrodes are arranged so as to completely fill the concavities and surfaces of the plurality of external terminal electrodes have a common flat surface with a surface of the recess portion.

Hata et al discloses an electronic component wherein the external terminal electrodes are arranged so as to completely fill the concavities and surfaces of the plurality of external terminal electrodes have a common flat surface with a surface of the component (for example see elements 2a, 3a, 1a, Fig 15)

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have completely filled the concavities as taught by Hata et al so as to have a common flat surface with the recess of the component as taught by Kwon et al so that an external circuit can be electrically connected, the concavities serving as an external connection terminal (see Hata et al column 6)

Regarding claim 2, Kwon et al discloses wherein each of the plurality of external terminal electrodes are arranged so as to extend from the first main surface to the second main surface (for example, see element 23a, Fig 16C)

Regarding claim 6, Kwon et al discloses the device further comprising an external conductor film provided on at least one of the first and second main surfaces (for example, see column 5, lines 43-46).

Regarding claim 7, Kwon et al discloses wherein each of the plurality of external terminal electrodes has a portion extending onto at least one of the first and second main surfaces (for example, see elements 23a, Fig 16C).

Regarding claim 8, Kwon et al discloses wherein the surface of each of the plurality of external terminal electrodes is entirely covered with a plating film (for example, see column 5, lines 43-46).

Claims 3,5 and 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon et al US Patent 6278178 in view of Ogiwara et al US Patent 4764233 and further in view of Hata et al US Patent 6383835

Regarding claim 3, Kwon et al discloses the instant claimed invention except wherein each of the plurality of external terminal electrodes are arranged so as to extend from

the first main surface towards to second main surface but not reaching the second main surface.

Ogihara et al discloses an electronic component wherein each of a plurality of external terminal electrodes are arranged so as to extend from a first main surface towards a second main surface but not reaching the second main surface (for example, see elements 2, Fig1).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have arranged the terminal electrodes as taught by Ogihara et al in the device as taught by Kwon et al for the purpose of facilitating electrical connectivity between the different layers of the substrate.

Regarding claim 5, Kwon et al discloses the instant claimed invention except wherein the member comprises a plurality of ceramic layers laminated together, and an internal conductor film provided on an interface between the ceramic layers.

Ogihara et al discloses an electronic component wherein a member comprises a plurality of ceramic layers laminated together, and an internal conductor film provided on an interface between the ceramic layers (for example, see Fig 1, see column 8, lines 56-66).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have arranged a plurality of layers as taught by Ogihara et al in the device as taught by Kwon et al as such an arrangement is conventional in the art of manufacturing multilayered substrates.

Regarding claims 9-19, the methods disclosed therein are deemed as inherent in the assembly of the claimed apparatus of the preceding claims as fully met by the accompanying references, (Kwon et al, Ogihara et al, Hata et al) and are subsequently rejected.

Regarding claims 20,21, Kwon et al ,Ogihara et al and Hata et al discloses an electronic component obtained by the method previously defined in the preceding claims (see Kwon et al, Ogihara et al, and Hata et al elements and Figs defined above)

Response to Arguments

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

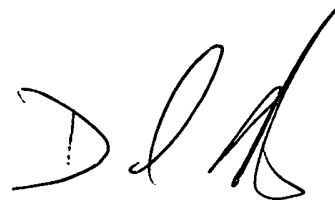
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dameon E Levi whose telephone number is (703) 305-0426. The examiner can normally be reached on Mon.-Fri. (9:00 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David S Martin can be reached on (703) 308-3121. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0058.

Dameon E Levi
Examiner
Art Unit 2841

DEL
April 22, 2003

A handwritten signature in black ink, appearing to read 'D. Martin', with a stylized flourish at the end.

DAVID MARTIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800